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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/523,573

01/28/2005

Olaf Binkle

3294

1285

7590

10/16/2008

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EXAMINER

FLETCHER III, WILLIAM P

ART UNIT

PAPER NUMBER

1792

MAIL DATE

DELIVERY MODE

10/16/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/523,573	<b>Applicant(s)</b> BINKLE ET AL.	
	<b>Examiner</b> William P. Fletcher III	<b>Art Unit</b> 1792	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 05 June 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 19-25 and 27-29 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 22 is/are allowed.
- 6) ☒ Claim(s) 19-21, 23, 24 and 27-29 is/are rejected.
- 7) ☒ Claim(s) 25 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Response to Amendment***

1. The amendment and remarks filed June 5, 2008, is noted with appreciation.
2. Claims 19-25 and 27-29 remain pending.

***Response to Arguments***

3. The objections and rejections set forth in the prior Office action are withdrawn in view of the amendment.
4. The indicated allowability of claim 22 is withdrawn in view of the newly discovered reference(s) to Schenck et al. (US 6,576,330 B1). Rejections based on the newly cited reference(s) follow.

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 20 and 27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A. Claim 20

- i. This claim appears to require that the coating be applied to *all* of the surfaces recited in the claim. The Examiner suggests that alternate (i.e., Markush) language would be more in keeping with the intent of Applicant's disclosure.

B. Claim 27

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- i. This claim appears to be contradictory. Claim 19, from which this claim depends, requires that burning-in occur during operation of the reactors, process plants, etc., while this claim requires that burning-in occur *before* said operation.

***Claim Rejections - 35 USC § 103***

7. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claims 19-21, 23, 24, and 27-29, are rejected under 35 U.S.C. 103(a) as being unpatentable over Schenck et al. (US 6,576,330 B1).

A. Claim 19

- i. This reference teaches a process for the application of a boron nitride (BN) paint to a ceramic substrate in a processing plant [abstract and 4:3 ff.]. The paint includes BN particles as well as particles of aluminum oxide in solvent (i.e., a “solvated paint”) [5:20 ff.]. The applied

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mixture is burned-in in "use-environments" (i.e., environments during use) [3:62-65].

ii. This reference does not expressly teach that the BN is "fine-particle" or that the aluminum oxide is in the nanometer range. With respect to the former, this reference teaches that it is known in such applications to utilize BN particle sizes below 10 microns [1:30-33]. Based on such an express suggestion, use of such particle sizes would have been obvious in the process of Schenck based on the desire and expectation of successfully formulating the paint. 10 microns lies within the range of 50 nanometers to 50 microns disclosed by Applicant as exemplary of "fine-particle" BN. With respect to the latter, it is the Examiner's position that the particle size of the aluminum hydroxide is a result-effective variable affecting properties of the paint such as viscosity and flowability. Consequently, it would have been obvious to one skilled in the art to optimize such a result-effective variable by routine experimentation. See MPEP 2144.05.

B. Claim 20

i. As noted above, insofar as the BN paint is applied to a substrate in a facility in which a process occurs, this reference reads on the claimed process plant.

C. Claim 21

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i. While not expressly taught, it is clear that the paint can advantageously be used in any environment requiring a refractory coating able to withstand temperatures up to 2,000 °F. Insofar as a waste incinerator is such an environment, the limitations of this claim would have been obvious to one skilled in the art.

D. Claim 23

i. As noted above, it would have been obvious to optimize the particle size by routine experimentation.

E. Claim 24

i. This reference teaches water [8:15 ff.].

F. Claim 27

i. This reference also teaches burning-in prior to operational start of the plant [3:65-67] and temperatures above 500°C [8:63].

G. Claim 28

i. While not expressly taught, it is clear that the paint can advantageously be used in any process for applying a refractory coating, including repair coating as repair coating has not yet been shown to be materially different than new coating.

H. Claim 29

i. This reference teaches rolling [8:50-51].

***Allowable Subject Matter***

10. Claim 22 is allowed.

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11. The following is an examiner's statement of reasons for allowance: The prior art neither teaches nor suggests the claimed process including an organometallic compound.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

12. Claim 25 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

13. The following is a statement of reasons for the indication of allowable subject matter: The prior art neither teaches nor suggests the claimed solvent.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William P. Fletcher III whose telephone number is (571) 272-1419. The examiner can normally be reached on Sunday, 5:00 AM - 12:00 PM and Monday through Friday, 5:00 AM - 3:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy H. Meeks can be reached on (571) 272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/William Phillip Fletcher III/  
Primary Examiner, Art Unit 1792

October 12, 2008